ABSTRACT OF THE DISCLOSURE

A power holdup circuit including a monitoring circuit and a power holdup circuit. The monitoring circuit includes an average voltage comparator and an absolute voltage comparator which cooperate to detect a voltage drop in the voltage supplied by the power supply. The monitoring circuit also includes a timer to determine the time period of the voltage dropout. If a predetermined voltage dropout event occurs, the monitoring circuit generates a control signal to a switching component which activates a holdup power source. The holdup power source includes an energy storage device that stores energy to maintain the supply voltage during dropout periods.